

[54] **DIGITAL FILTER FOR SHARED-TIME PROCESSING ON SEVERAL CHANNELS**

[75] Inventors: **Jean-Pierre Houdard**, Orsay;
Jean-Jacques Julie, Paris; **Bernard G. Leoni**, Brundy, all of France

[73] Assignee: **Le Materiel Telephonique Thomson-CSF**, Colombes, France

[21] Appl. No.: **113,039**

[22] Filed: **Jan. 17, 1980**

[30] **Foreign Application Priority Data**

Jan. 29, 1979 [FR] France 79 02163

[51] Int. Cl.³ **G06F 15/31**

[52] U.S. Cl. **364/724**

[58] Field of Search **364/724**

[56]

References Cited

U.S. PATENT DOCUMENTS

3,689,844 9/1972 Buzzard et al. 364/724 X
3,717,754 2/1973 Buzzard et al. 364/724
4,125,900 11/1978 Betts 364/724

Primary Examiner—Jerry Smith

Attorney, Agent, or Firm—Roland Plottel

[57]

ABSTRACT

A digital filter for shared-time processing on several channels. The filter has several elementary cells (C_1 to C_K), each comprising a read-write memory (M_1 to M_K), a read-only memory (H_1 to H_K), and an arithmetic unit (U_1 to U_K). A page address counter CT_1 , a word address counter CT_2 and a weighting coefficient address counter CT_3 are common to the cells. Delayed discrete values are transferred by the relative addressing of the memory words. The filter will find particular application as a half-band extrapolator filter for telephone switching.

6 Claims, 4 Drawing Figures

